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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,539	12/05/2003	Jason Charles Pelly	282557US8X	8289

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EXAMINER
HOANG, DANIEL L

ART UNIT	PAPER NUMBER
2136	

NOTIFICATION DATE	DELIVERY MODE
07/29/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/728,539	PELLY ET AL.	
	Examiner	Art Unit	
	DANIEL L. HOANG	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7-15,17,18,21,22 and 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-14,17,18,21,22 and 24* is/are rejected.

7)☐ Claim(s) *5, 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

RESPONSE TO ARGUMENTS

1. Applicant's arguments filed 3/27/08 have been fully considered but they are not persuasive.

2. Applicant argues the following:

3. Haitsma clearly fails to teach that when the dependent correlation value does not exceed the predetermined threshold, the correlator is operable to form the recovered part of the code word from code word parts from successive material units.

4. In regards to the above argument, examiner respectfully disagrees. It appears that applicant is arguing that although Haitsma recovers the code word from material units, the material units in which Haitsma recovers the code word are not "successive". Applicant further establishes this argument by citing that the code word part is successively applied to the signal with different vectors to find out which correlation is maximal, in other words, the same code word is applied with all possible different shift vectors. While this may or may not be true, examiner still contends that Haitsma teaches the currently claimed invention. Assuming that the system taught by Haitsma partitions each frame into just two equally sized tiles, when the detection process occurs, it is clear that any recovered code word would have had to result from the correlation of two successive tiles since only two tiles exist. Since applicant's current claim language does not explicitly cite the necessity for a certain number of material units, it is clear that the Haitsma reference reads upon the claim language. For this reason, the previous action's rejections are maintained.

CLAIM REJECTIONS

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7-14, 17-18, 21-22, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Haitsma, US Patent No. 6,505,223.

As per claim 1, 11, 17, 21-24, Haitsma teaches:

A data processing apparatus operable to identify at least one of a plurality of code words, forming a code word set, present in a marked version of a material item, the marked version having been formed by combining each of a plurality of parts of a code word with one of a plurality of units from which the material item is comprised, the apparatus comprising:

a recovery processor operable to recover at least one part of the code word from a corresponding unit of the marked material item, and

[see col. 3, lines 28-36]

a correlator operable to generate for the marked material unit a dependent correlation value by correlating the part of the code word recovered from the material unit with a corresponding part of at least one of a re-generated code words from the code word set, and

[see col. 3, lines 28-36]

a detector operable to determine whether at least one of the code words is present in the marked material item from the dependent correlation value for the part of the code word exceeding a predetermined threshold, wherein

[see col. 3, lines 38-60]

when the dependent correlation value does not exceed the predetermined threshold the correlator is operable under control of the detector to form the recovered part of the code word from code word parts from successive material units the recovered part of the code word iteratively increasing in a number of code word parts used and to generate dependent correlation values for each iteratively increased

recovered part of the code word by correlating with corresponding parts of the re-generated code word, the iteration continuing until the whole code word is recovered and correlated with the whole regenerated code word or the predetermined threshold exceeded.

[see col 3, lines 38-67 and col. 4, lines 4-46] The correlation value is found by shifting the image and the pattern by a vector. The watermark patter is detected to be present if a correlation value is larger than a given threshold.

"The vector k by which tile w has been shifted can be found by successively applying w with different vectors k to the detector, and determining for which k the correlation is maximal." (col. 3, lines 61-64)

As per claim 2, 12, Haitsma teaches:

A data processing apparatus as claimed in claim 1, wherein the detector is operable in combination with the correlator to form a dependent correlation value for a plurality of parts of the recovered code word, and if the correlation value exceeds the predetermined threshold for one of the dependent correlation values, the detector is operable to identify the code word as present according to a predetermined false detection probability.

[see col. 4, lines 46-61]

As per claim 3, 4, 13, 14, Haitsma teaches:

A data processing apparatus as claimed in claim 2, wherein the detector is operable in combination with the correlator to form the dependent correlation values by combining the parts of the code word recovered from successive material units, and by correlating the parts formed from successive material units with corresponding part of the regenerated code word.

[see col. 4, lines 15-40]

As per claim 7, Haitsma teaches:

A data processing apparatus as claimed in claim 1, wherein the detector and the correlator are operable in combination to form the dependent correlation value for at least one selected code word re-generated from the set of code words, the code word being selected from the set in accordance with the relative magnitudes of the dependent correlation value formed for each code word of the set.

[see col. 5, lines 13-45]

As per claim 8, Haitsma teaches:

A data processing apparatus as claimed in claim 1, wherein the plurality of code words are formed from a first code word having a plurality of predetermined pseudo-randomly distributed coefficients and by generating other code words of the set by cyclically shifting the first code word, and the correlation value is formed for a plurality of the code words by forming a Fourier transform of the recovered code word, forming a Fourier transform of the first code word of the set, forming the complex conjugate of one of the Fourier transform of the recovered code word and the Fourier transform of the regenerated code word, forming intermediate product samples by multiplying each of the Fourier transform samples of the recovered code word and the corresponding Fourier transform samples of the first code word, forming correlation samples by forming an inverse transform of the intermediate product samples, each of the correlation value samples providing the correlation value for one of the set of code words, wherein the forming a Fourier transform of the part of the recovered code word comprises setting the remaining part of the recovered code word to zero, and forming the Fourier transform of the recovered code word, and the forming a Fourier transform of the first code word of the set comprises setting the remaining part of the first code word to zero, and forming the Fourier transform of the first code word.

[see col. 3, lines 19-27 and col. 4, lines 15-45]

As per claim 9, Haitsma teaches:

A data processing apparatus as claimed in claim 1, wherein the code word has been introduced into the material item in the discrete cosine transform domain, the apparatus comprising a discrete cosine transform processor operable to transform the marked material item and the original material item into the

discrete cosine transform domain, wherein the recovery processor is operable to generate the recovered code word by subtracting corresponding discrete cosine transform coefficients of the original material version from discrete cosine transform coefficients of the marked material version.

[see col. 5, lines 13-33]

As per claim 10, Haitsma teaches:

A data processing apparatus as claimed in claim 1, wherein the material is video material, the material units being video images.

[see col. 2, lines 30-35]

As per claim 18, Haitsma teaches:

An encoding data processing apparatus as claimed in claim 17, wherein the plurality of code words are formed from a first code word having a plurality of predetermined pseudo-randomly distributed coefficients and by generating other code words of the set by cyclically shifting the first code word.

[see col. 3, lines 10-26]

CONCLUSION

Allowable Subject Matter

Claims 5 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

POINTS OF CONTACT

*. Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents

P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

*. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L. Hoang whose telephone number is 571-270-1019. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Daniel L. Hoang/
Examiner, Art Unit 2136

/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2136